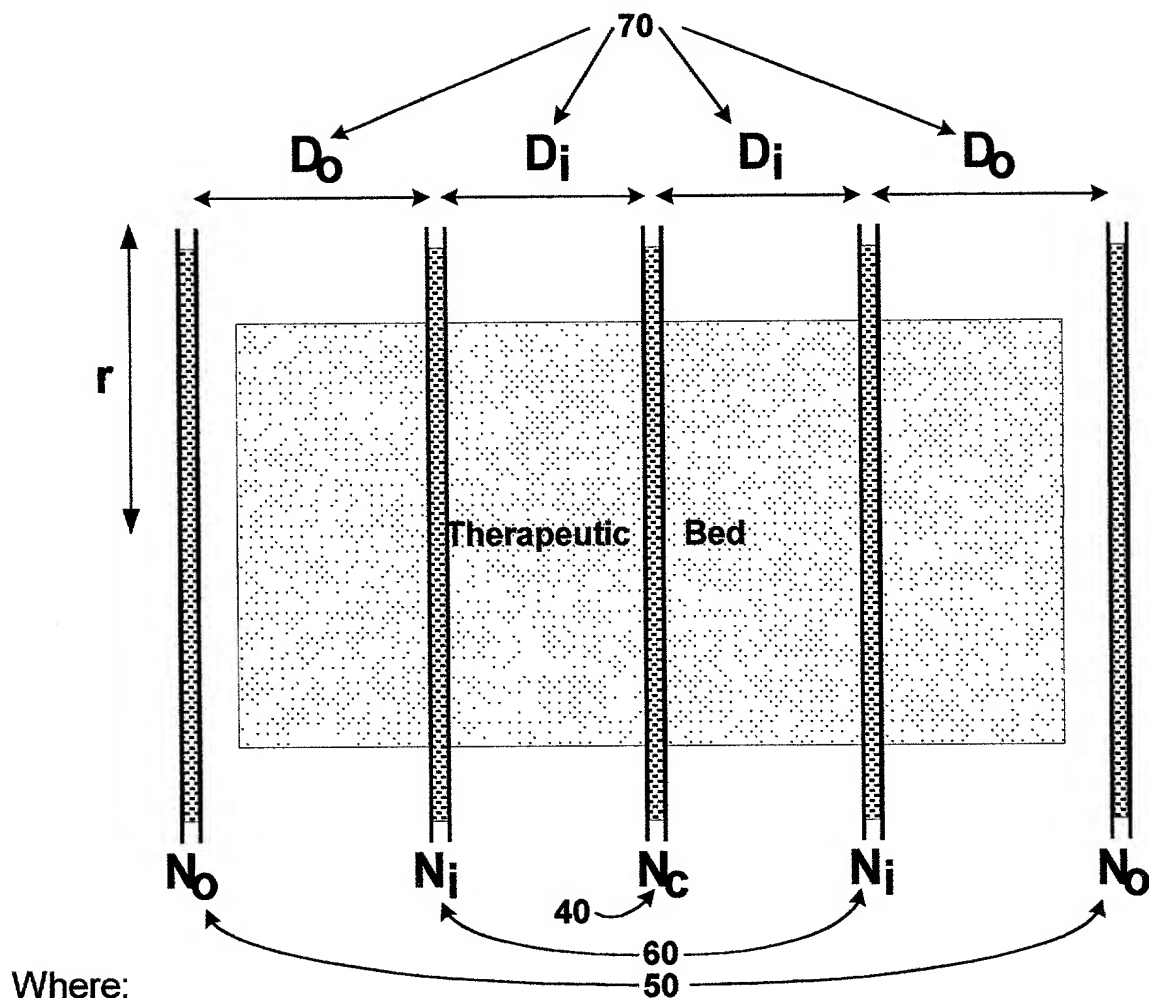


FIG. 1
Orthogonal View of Present Invention



Where:

D_o = Distance between each end coil and its adjacent coil

D_i = Distance between the center coil and each of its adjacent coils

r = radius of each coil

N_o = Number of turns of wire on each end coil

N_i = Number of turns of wire on each coil adjacent to an end coil

N_c = Number of turns of wire on the center coil

NOTE: All distances listed above are center to center distances

FIG. 2
Overhead View of Coil Spacings (for 5 coil system)

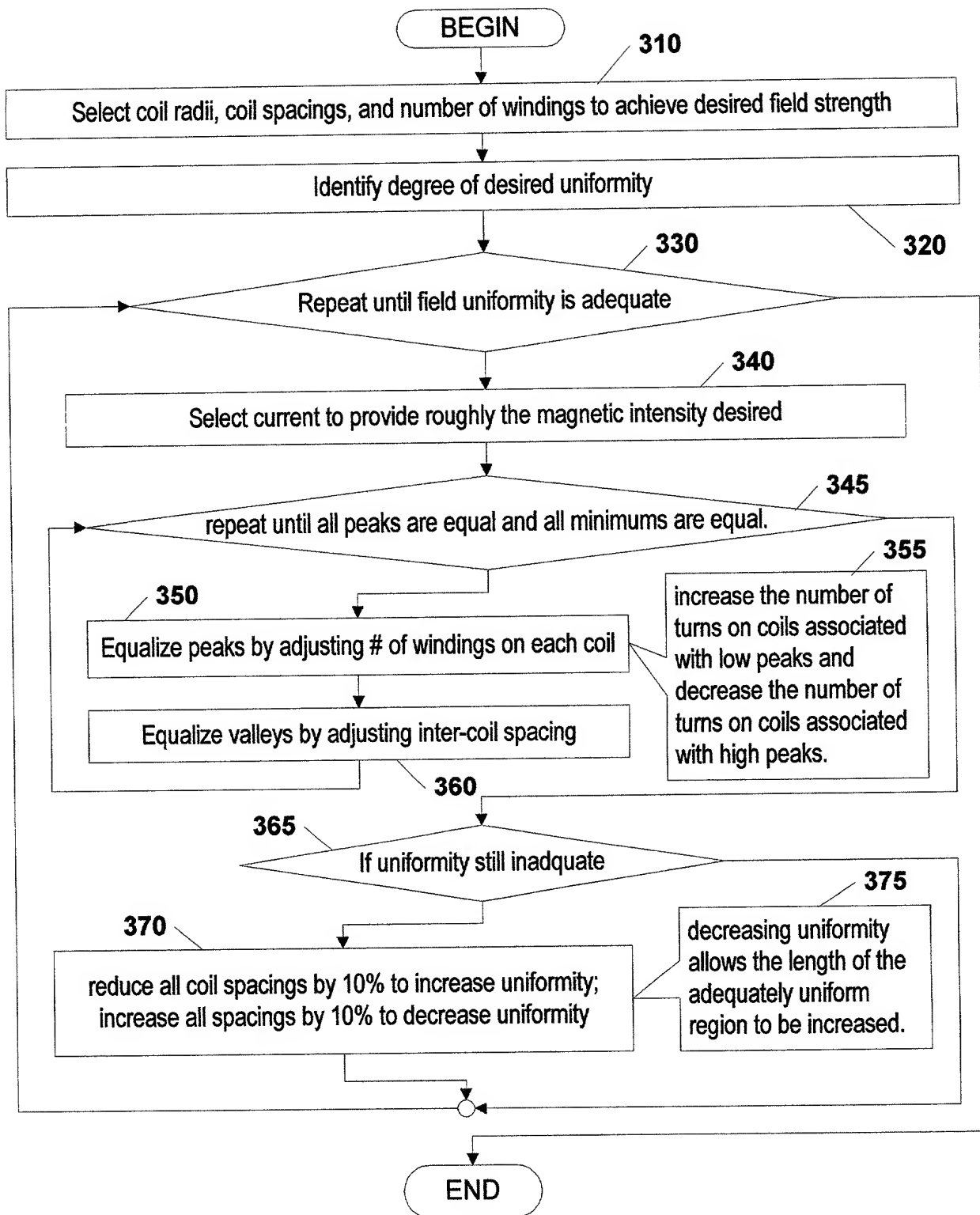


FIG. 3
Process for Developing an Acceptably
Uniform Field in a Polycoil System

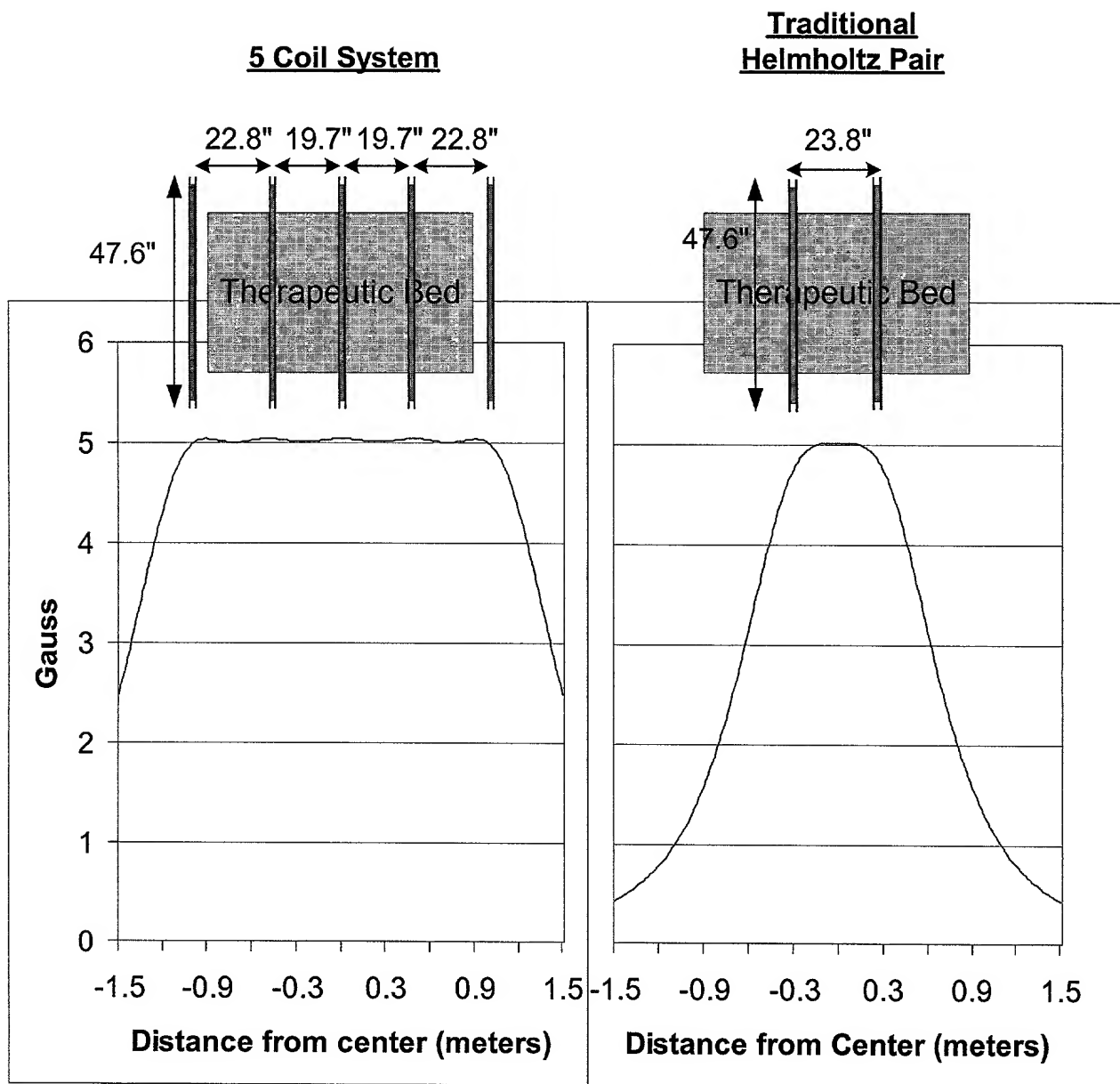


FIG. 4
Overhead View of Coil Spacings
(for 5 coil system and for Traditional Helmholtz Pair)

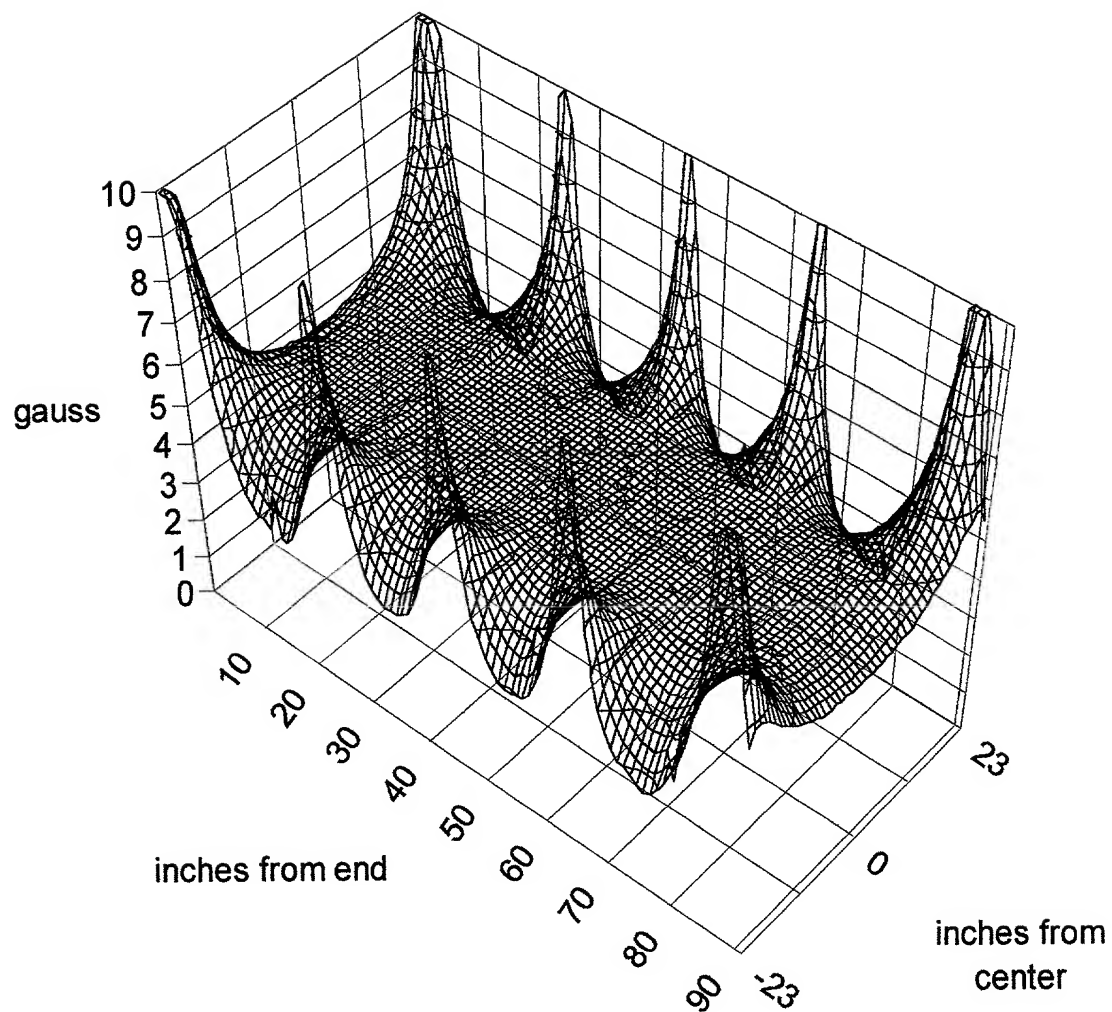


FIG. 5
Magnetic Field Strength of Longitudinal Component

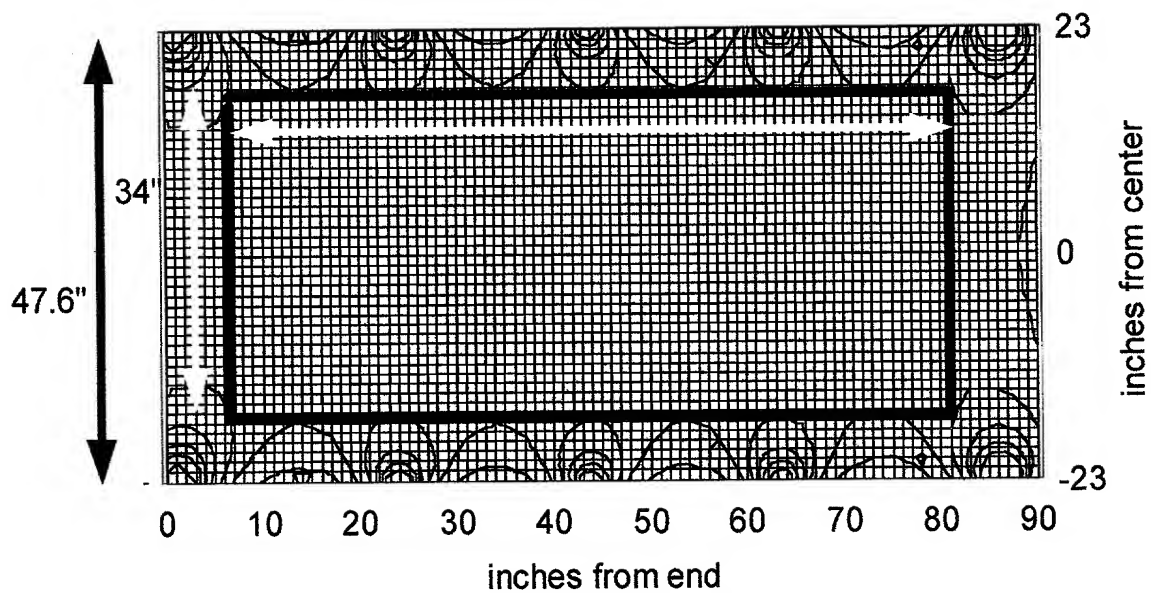


FIG. 6
3-D Surface Map of Magnetic Field Strength